

*On the Pselaphidæ of Australia, by the*

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THE collections made during the past season by Mr. Masters in different parts of the colony, by Mr. MacLeay at the Currajong, and by myself in Paramatta and its neighbourhood, have been exceedingly prolific in new species. A description of one, forming the new genus *Cyathiger*, was read before the Society at the June meeting. I propose now to add a description of the other species which have been captured, together with some from Victoria, from the collections of the Count de Castelnau and Dr. Howitt.

TYRUS CORNIGER.

Castaneus setosus; capite punctulato fronte conspicuo ad latera elevato 2<sup>bus</sup> setis crassis elongatis armato; palporum maxillarium articulo ultimo ad basin tumido; thorace punctato ad medium latiori, antice rotundato, postice minus contracto; elytris stria suturali discoidali nulla; abdominis segmento 2<sup>ndo</sup> magno.

Long. 0·06 poll.

Under a log. The Clyde River. *Mr. Masters.*

This species bears a very close resemblance to *Tyrus subulatus* in its punctate character, as well as in the shape of the maxillary palpi. The two thick setæ projecting like horns from between the antennæ at once distinguish the species. It is smaller than *T. subulatus*. A single specimen was obtained by Mr. Masters at the Clyde River.

It will probably be found necessary eventually to place *T. Corniger* and *T. subulatus* in a new sub-genus, distinguished by the shape of the last joint of the maxillary palpus. A third species having a similar palpus is in the collection of Dr. Howitt, at Melbourne.

## TYRUS SPECIOSUS.

Piceo-castaneus nitidus holosericeus; capite 2<sup>bus</sup> inter oculos foveis magnis, antennis elongatis, articulis 2<sup>do</sup> et 8<sup>vo</sup> brevibus, thorace gibboso non foveolato; elytris castaneis humeris elevatis, linea discoidali obsoleta; abdomine piceo, segmento 3<sup>tio</sup> postice angulato; pedibus castaneis femoribus anticis spina armatis.

Long. 0.15.

The Clyde River. *Mr. Masters.*

The antennæ of this fine species are much elongated, the 2<sup>nd</sup> and 8<sup>th</sup> joints excepted. It is the largest of the family hitherto detected in Australia. A single specimen only was obtained.

## TYRUS VICTORIÆ.

Niger hirtus; capite 2<sup>bus</sup> inter oculos foveis magnis, antennis castaneis, articulo penultimo transverso, basali subelongato; thorace convexo, fovea basali magna; elytris piceo castaneis sutura nigricante humeris elevatis, linea suturali, nulla discoidali; abdomine nigro marginibus piceis, segmentis subæqualibus; pedibus castaneis unguibus subæqualibus.

Long. 0.11.

Melbourne, from the collection of Count Castelnau.

The inequality of the tarsal hooks makes this species a doubtful member of this genus. I have not had an opportunity of dissecting it, there being but a single specimen in the collection.

## FARONUS PUNCTATUS.

Piceus setosus punctulatus; capite inter antennas linea longitudinali, foveis inter oculos duabus, vertice medio altera unica notato; antennarum articulo basali ovato, 2 — 4 globosis, 6 — 10 transversis et a 7<sup>mo</sup> gradatim crescentibus, 11<sup>mo</sup> truncato-ovato; palporum maxillarium articulo 1<sup>mo</sup> minimo 2<sup>ndo</sup> elongato-clavato; 3<sup>tio</sup> parvo subgloboso, 4<sup>to</sup> fusiformi appendice membranaceo; thorace ante medium latiori angulato, fovea ad basin magna; elytris humeris plicatis, linea suturali; abdominis segmentis subæqualibus.

Long. 0·11.

The Currajong, on a fence at evening. *W. MacLeay, Esq.*

This species appears to belong to the genus *Faronus*, but as there is but a single specimen, I have not been able to examine the trophi. The hooks on the tarsi, though of equal length, are not of equal thickness. It is quite possible that when we obtain other specimens for dissection, it may prove to belong to a new genus.

#### PSSELAPHUS CLAVATUS.

*Castaneus politus* capite 2<sup>bus</sup> inter oculos foveis elongatis antice confluentibus ; palporum maxillarium articulo ultimo crasso truncato ; thorace ad medium latiori antice contracto, postice minus contracto linea curvata basali notato ; elytris parce setosis setis in lineis 3 aut 4 longitudinalibus dispositis, ad bases setis longioribus et pluribus ornatis ; stria suturali altera discoidali submedia.

Long. 0·07.

The Clyde River, under a log. *Mr. Masters.*

Var. *Edwardsii*, Melbourne. *Mr. Edwards.*

The Melbourne specimens are more setose, and appear to vary somewhat *inter se* in the sculpture of the head. The setæ on the elytra are not in lines. The shape of the last joint of the maxillary palpi in this species is very remarkable, and very distinct from that of every other species of the genus with which I am acquainted. The insect appears to be common at Melbourne.

#### PSSELAPHUS PUNCTATUS.

*Piceus*, capite elongato, alte punctato inter antennis canaliculato ; palporum maxillarium articulo ultimo subfusiformi truncato, antennis ad bases squamosis ; thorace capite vix breviori alte punctato linea transversa ad basin notato ; elytris depressis politis, stria suturali linea discoidali elevata ; abdomine parce setoso segmento 2<sup>do</sup> magno.

Long. 0·12.

Rockhampton, from the collection of the Count Castelnau. It is, perhaps, hardly a true *Pselaphus*. The thorax is short, and the last joint of the maxillary palpi is thick at the base ; yet

it is very near in other respects to the restricted genus. In this, as in too many other instances, I have not had an opportunity of dissecting the parts of the mouth. The transverse line on the thorax is suddenly recurved towards the base at either side.

#### TYCHUS OBLIQUUS.

Piceo-castaneus politus non setosus; capite 2<sup>bus</sup> inter oculos impressionibus minutis, fronte irregulariter punctata; antennarum maris articulo antepenultimo transverso, penultimo ovato obliquo, ultimo ovato præcedente minori; thorace obcordato ad basin piceo non foveolato.

Long. 0·04.

Paramatta. *Rev. R. L. King.*

The Blue Mountains. *Mr. Masters.*

It is smaller than *T. nigricollis*, and, except on the antennæ, is not setose. The 5th joint of the antennæ is smaller, but more strongly toothed than in that species. The last joint, obliquely set upon the preceding, at once points out the distinctness of the species. The only specimen that I have met with was under the bark of a dead log with *Passalus*, &c.

#### TYCHUS HOWITTI.

Piceus, capite polito elongato inter antennis breves canaliculato; antennarum articulis 2—8 subæqualibus moniliformibus; thorace obcordato foveis lateralibus linea transversa basali conjunctis; elytris stria suturali altera discoidali setis paucis in lineis dispositis vestitis, abdominis segmento 2<sup>do</sup> magno.

Long. 0·05.

Melbourne, in grass. *Dr. Howitt.*

The 5th joint of the antennæ is not swollen and toothed in the male of this species. I have captured in the neighbourhood of Maitland what appears to be but a variety of this species.

I have taken the liberty of dedicating this species to my friend Dr. Howitt, to whose kindness I am indebted for almost all that I know of the entomology of Victoria.

#### BATRISUS NOBILIS.

Piceo-castaneus elytrorum disco pallidiori, setosus; capite fronte excavato, antennarum articulis obconicis truncatis

ultimo elongato  $2^{\text{bus}}$  præcedentibus æquali; thorace ad medium latiori antice rotundato postice minus contracto; elytris stria suturali nulla discoidali.

Long. 0.12.

Paramatta.

This fine species was captured under the bark of a dead log in the nest of the "white ants." It was there, probably, by accident, as there was but a single specimen. It is very unlike the other Australian species of this genus, and seems to approach the genus *Hamotus*. The hooks on the tarsi are very nearly equal.

#### BATRISUS TIBIALIS.

Piceo-castaneus elytris pallidioribus, setosus; capite  $2^{\text{bus}}$  inter oculos lineis postice in foveis lateralibus desinentibus, antennis gracillimis; thorace convexo obcordato  $2^{\text{bus}}$  lineis lateralibus notato; elytris linea suturali altera discoidali; abdomine setoso, segmento  $2^{\text{do}}$  magno; pedibus castaneis, anticorum (maris) tibia tumida alte emarginata.

Long. 0.08.

Maitland, under log.—September, 1864.

The deep notch on the fore tibiæ is very remarkable, and closely resembles that of many of the *Curabidæ*. I have hitherto met with but a single specimen of this interesting form.

#### BATRISUS CONSPICUUS.

Piceo-castaneus setosus; capite transverso punctulato; thorace punctulato subrotundo, postice truncato linea longitudinali et  $2^{\text{bus}}$  foveis lateralibus linea transversa curvata conjunctis notato; elytris humeris plicatis lateribus parallelis, stria suturali altera discoidali, abdominis segmentis subæqualibus.

Long. 0.09.

Paramatta, under wood on grass in a damp place.

The club of the antennæ is 3-jointed, the 9th and 10th joints subglobose; the basal joint is rather long.

This species is evidently near *B. barbatus*, but it is consider-

ably larger. It is also readily distinguished from that species by having but one discoidal stria on the elytra.

I have found hitherto but a single specimen.

#### BATRISUS EDWARDSII.

Castaneus vix nitidus sub lente setosus ; capite transverso inter antennis excavato ; antennis subcapitatis articulo penultimo transverso ; thorace ad medium latiori, linea media longitudinali, altera basali transversa foveas duas laterales conjungenti, fovea media obsoleta ; elytris stria suturali altera discoidali obsoleta dimidiata, abdominis segmento 2<sup>do</sup> magno.

Long. 0.05.

Melbourne. *Mr. Edwards.*

This species also comes very near *B. barbatus*. It is, however, smaller, and differs in several important particulars : as for instance in its shorter head, and in the large size of the 2nd joint of the abdomen. The antennæ very much resemble those of the genus *Euplectus*.

#### BRYAXIS INSIGNIS.

Polita, parce setosa, capite et thorace nigro elytris castaneis abdomine piceo ; capite inter antennis excavato, foveis inter oculos duabus ; antennarum articulo basali elongato, 2<sup>ndo</sup> subgloboso, penultimo piceo ; thorace obcordato 2<sup>bus</sup> foveis magnis lateralibus linea curvata conjunctis ; elytris linea suturali altera discoidali ; abdominis segmento 2<sup>ndo</sup> magno.

Long. 0.08.

The Currajong. *W. MacLeay, Esq.*

This handsome and very distinct species was taken on a fence at dusk. Its black head and thorax at once distinguish it from its Australian congeners.

#### BRYAXIS BASALIS.

Piceo-castanea polita setosa ; capite magno thorace latiori, 2<sup>bus</sup> inter oculos foveis notato ; antennarum articulo basali

valde elongato; thorace obcordato postice subito contracto  
 $2^{\text{bus}}$  foveis lateralibus; elytris stria suturali altera discoidali;  
 abdomine setis paucis elongatis notato.

Long. 0.06.

The Clyde River, under debris, after a flood. *Mr. Masters.*

The large head and the very long basal joint of the antennæ—as long as the club—are distinguishing marks of this species.

#### BRYAXIS DOMINORUM.

*Picea polita* sub lente setosa; capite inter oculos 2-impresso  
 antennarum articulo penultimo transverso; thorace lateribus  
 rotundatis foveis  $2^{\text{bus}}$  lateralibus; elytris linea suturali  
 altera discoidali.

Long. 0.04.

Under debris, the Clyde River. *Mr. Masters.*

This minute species may readily be distinguished by the transverse penultimate joint of the antennæ. A species very closely resembling it I observed among the Melbourne specimens sent by H. Edwards, Esq.

#### BYTHINUS IMPRESSIFRONS.

*Piceus politus* sub lente setosus; capite subtransverso inter oculos profunde 2-impresso; palporum maxillarum articulo ultimo extus excavato; thorace ad medium latiori antice contracto postice minus contracto, foveis  $2^{\text{bus}}$  lateralibus linea curvata conjunctis; elytris magnis stria suturali altera discoidali dimidiata.

Long. 0.05.

Under debris, after a flood, the Clyde River. *Mr. Masters.*

This is the first specimen of this genus found in Australia. As yet I have seen it from this locality only.

#### CYATHIGER PUNCTATUS.

Among a considerable number of new species of *Pselaphides* which have lately been obtained, none has been met with so remarkable and on many accounts so interesting as that which I

have now to describe. It was first found by Mr. Masters in an entomological excursion among the Blue Mountains; and afterwards it was captured by the same indefatigable collector in the neighbourhood of Petersham. In both localities it was living under burnt logs, half buried in the ground—a favorite habitat, let me observe in passing, for other members of this family. Our insect must be arranged under a new genus, for which a remarkable peculiarity in the last joint of the antennæ has suggested a name.

## CYATHIGER.

*Palpi maxillares* 3-articulati articulo 1<sup>mo</sup> elongato clavato, 2<sup>ndo</sup> brevi cyathiformi, 3<sup>tio</sup> acinaciformi truncato.

*Antennæ* ad bases approximatae, capitatae, 7-articulatae, articulo 1<sup>mo</sup> longo, 2 — 6 subæqualibus, 7<sup>mo</sup> magno convexo-concavo.

*Oculi* parvi.

*Thorax* brevis.

*Elytra* convexa integra.

*Abdomen* suturâ unicâ.

*Tarsi* 3-articulati.

*Corpus* setosum, alatum.

This genus appears to occupy a station midway between the *Pselaphides vere* and the *Clavigerides*. It has the trophi of the former and an abdomen more nearly allied to that of the latter sub-division; while the antennæ have less joints than are found in the former, and more than are found in the latter. It evidently makes the transition from the true *Pselaphidæ* to the abnormal group less abrupt. The presence of eyes is no criterion, for *Articerus*, which belongs to the *Clavigerides* has eyes, though *Claviger* itself has none; while though eyes are the rule in the *Pselaphides vere*, *Amaurops* is blind.

## CYATHIGER PUNCTATUS. Pl. xiv.

Piceo-castaneus parce setosus, alte punctatus; antennarum articulo ultimo intus concavo extus convexo; elytris lineâ atque emarginatione nulla; femoribus tuberculis armatis.

Long. 0.05 poll.

Loc. The Blue Mountains and Petersham. *Mr. Masters.*



The antennæ have the first joint as long as the three following; the 3rd is larger than the 2nd or 4th. The 7th joint is very large, being as long as the 5 preceding; it is somewhat trapeziform. On the inner side it is very concave, and on the outer side very convex.

The maxillary palpi are 3-jointed; the first joint is much constricted near the base, and has the appearance of being composed of two joints. I think, however, that there is but one. The second joint is small. The third joint is as long as the two preceding, and is slightly curved, increasing in thickness towards the extremity, which is truncate, with a few setæ and a membranous point. The femur of the anterior leg is armed with a ridge of blunt tubercles on one side of the hollow which receives the tibia when folded back; on the other side is a single tubercle. The middle and posterior legs have traces of similar tubercles.

The abdomen is composed of two segments, the first of which is placed almost wholly beneath, the second almost wholly above. It is thus capable of little else than *vertical* expansion. The first segment which, on the upper side is extremely narrow, but which extends underneath the whole length of the abdomen, is apparently composed of 3 or 4 segments consolidated; since, when seen from below, it is found to be furnished with 2 longitudinal ridges, marked by notches. There is, however, no trace of the line of the segments which is to be found in *Claviger*.

The whole insect is covered with large and deep punctures, from each of which a small seta springs.

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#### DESCRIPTION OF PLATE.

*a.* mandible.

*b.* fore-leg.

*c.* labrum.

*d.* labium and palpi.

*e.* maxilla and palpus.

*f.* puncturation.

*g.* abdomen from above.

*h.* abdomen from beneath.

N.B.—In the plate the antennæ are too long: they should not be longer than the head and thorax.

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